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	Application No.	Applicant(s)	
Notice of Allowability	10/810,309 Examiner	AKASAKI ET AL. Art Unit	
	Thao X. Le	2814	
The MAILING DATE of this communication appe All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this a or other appropriate communicatio GHTS. This application is subject	oplication. If not included in will be mailed in due course. THIS	re .
1. X This communication is responsive to 10/26/05.			
2. X The allowed claim(s) is/are 2,4,6,8,10-13 and 19.			
 3. Acknowledgment is made of a claim for foreign priority unally all b) Some* c) None of the: All b) Some* c) None of the: Certified copies of the priority documents have Certified copies of the priority documents have Copies of the certified copies of the priority documents have international Bureau (PCT Rule 17.2(a)). * Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" on oted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 	been received. been received in Application No cuments have been received in this of this communication to file a reply	s national stage application from the	
4. A SUBSTITUTE OATH OR DECLARATION must be submi			
 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. 			
Attachment(s) 1. Notice of References Cited (PTO-892) 2. Notice of Draftperson's Patent Drawing Review (PTO-948) 3. Information Disclosure Statements (PTO-1449 or PTO/SB/0 Paper No./Mail Date 4. Examiner's Comment Regarding Requirement for Deposit of Biological Material	6. ☐ Interview Summar Paper No./Mail D 8), 7. ☒ Examiner's Amend	ate	

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EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with the Applicant's Attorney, Mr. B. Shuman, on 21 November 2005. The application has been amended as follows:

In Claim:

- Claim 15 canceled.
- 2. This application is in condition for allowance except for the presence of claims 1, 3, 5, 7, 9, 14, 16, 18, and 20-32 to inventions non-elected without traverse on 06 July 2005. Accordingly, claims 1, 3, 5, 7, 9, 14, 16, 18, 20-32 have been cancelled.
- 3. The following is an examiner's statement of reasons for allowance: Claims 2, 4, 6, 8,10-13, 15 and 19 are allowed because the prior art of record neither anticipated nor rendered obvious all the limitation of the base claim 2 including 'a substrate made of a diboride single crystal expressed by a chemical formula XB_2 , in which X includes at least one of Ti, Zr, Nb, and Hf; wherein an angle θ 1 formed by a normal line of a principal surface of the substrate and a normal line of a (0001) plane of the substrate is $0^{\circ} < \theta$ 1 \leq 0.55°.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao X. Le whose telephone number is (571) 272-1708. The examiner can normally be reached on M-F from 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael M. Fahmy can be reached on (571) 272 -1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thao X. Le 16 November 2005

LONG PHAM PRIMARY EXAMINER